

CLAIM AMENDMENTS

Claim 1. (ORIGINAL) A node for providing a common interface for a plurality of system devices connected to a network, comprising:

- (a) user-configurable software for providing a software interface for said plurality of system devices; and
- (b) multifunctional hardware for providing a hardware interface for said plurality of system devices.

Claim 2. (ORIGINAL) The node of claim 1, further comprising at least one system device connected to said node, wherein said at least one system device is a digital device, an analog device, or a serial device.

Claim 3. (CANCELLED)

Claim 4. (ORIGINAL) The node of claim 2, wherein said node provides a switching functionality, whereby the electronic communication formats of said system devices are standardized to a single communication protocol.

Claim 5. (ORIGINAL) The node of claim 1, further comprising at least one processing unit connected to said node through said network for processing information received from, and sending information to, said system devices.

Claim 6. (CANCELLED)

Claim 7. (CANCELLED)

Claim 8. (CANCELLED)

Claim 9. (ORIGINAL) The node of claim 1, wherein said plurality of system devices consists of digital devices, analog devices, serial devices, or combinations thereof.

Claim 10. (ORIGINAL) The node of claim 1, wherein said network is a Controller Area Network.

Claim 11. (ORIGINAL) The node of claim 1, wherein said network is any network compatible with said node and said system devices.

Claim 12. (ORIGINAL) The node of claim 1, wherein said user-configurable software is expandable and updatable across said network.

Claim 13. (ORIGINAL) The node of claim 1, wherein said user-configurable software further comprises:

- (a) an application manager layer for facilitating multiprocessing, resource allocation, memory management and cooperation among independent application modules;
- (b) application modules layer for application-dependent processing of system inputs and outputs; and
- (c) a hardware abstraction layer to consolidate all hardware interfaces accessible from application modules.

Claim 14. (ORIGINAL) The node of claim 1, wherein said multifunctional hardware further comprises:

- (a) memory for storing said user-configurable software;
- (b) a microprocessing subunit for controlling the operation of said hardware as commanded by said user-configurable software;
- (c) a plurality of inputs / outputs in communication with said microprocessing subunit for connecting to said system devices, and
- (d) a power supply.

Claim 15. (ORIGINAL) The node of claim 14, wherein said memory further comprises a volatile memory module and a non-volatile memory module.

Claim 16. (ORIGINAL) The node of claim 14, wherein said microprocessing subunit further comprises a microprocessor chip.

Claim 17. (ORIGINAL) The node of claim 14, wherein said microprocessing subunit further comprises an address and data bus interface in communication with said memory.

Claim 18. (ORIGINAL) The node of claim 14, wherein said microprocessing subunit further comprises an asynchronous serial port in communication with a serial device transceiver in communication with a high-speed serial interface connector.

Claim 19. (ORIGINAL) The node of claim 14, wherein said microprocessing subunit further comprises a synchronous serial port in communication with a synchronous serial port interface connector.

Claim 20. (ORIGINAL) The node of claim 14, wherein said microprocessing subunit further comprises a background debugging monitor in communication with a background debugging monitor interface connector.

Claim 21. (ORIGINAL) The node of claim 14, wherein said microprocessing subunit further comprises a network interface in communication with a network connector.

Claim 22. (ORIGINAL) The node of claim 14, wherein said microprocessing subunit further comprises an analog to digital converter in communication with an analog to digital and digital I/O interface connector.

Claim 23. (ORIGINAL) The node of claim 14, wherein said microprocessing subunit further comprises a time processing unit in communication with a switch array in communication with a digital I/O and serial interface connector.

Claim 24. (ORIGINAL) The node of claim 14, wherein said plurality of inputs/outputs further comprises a plurality of digital input/outputs.

Claim 25. (ORIGINAL) The node of claim 14, wherein said plurality of inputs/outputs further comprises a plurality of analog input/outputs.

Claim 26. (ORIGINAL) The node of claim 14, wherein said plurality of inputs/outputs further comprises a plurality of serial input/outputs.

Claim 27. (ORIGINAL) The node of claim 14, wherein said plurality of inputs/outputs consists of a plurality of digital input/outputs, analog input/outputs, serial input/outputs, or combinations thereof.

Claims 28-62. (CANCELLED)

Claim 63. (ORIGINAL) A system for automated control of a plurality of system devices, comprising:

- (a) a node for providing a common interface for said plurality of system devices, further comprising: user-configurable software for providing a software interface for said plurality of system devices; and multifunctional hardware for providing a hardware interface for said plurality of system devices;
- (b) a plurality of digital, analog, serial, or other system devices in communication with said node by means of a network; and
- (c) a processing unit in communication with said node by means of said network for communicating with and controlling said system devices.

Claim 64. (ORIGINAL) A method for communicating with a variety of system devices from at least one processing terminal, comprising:

- (a) connecting said system devices to a multifunctional network interface node further comprising a user-configurable software interface; and a

hardware interface, whereby said node standardizes the voltage output levels and electronic communications protocols of said system devices; and
(b) connecting said multifunctional network interface node to a processing unit by means of a network, whereby said information from said system devices may be received and processed, and commands may be sent to said system devices.